# noranda 1973

annual report

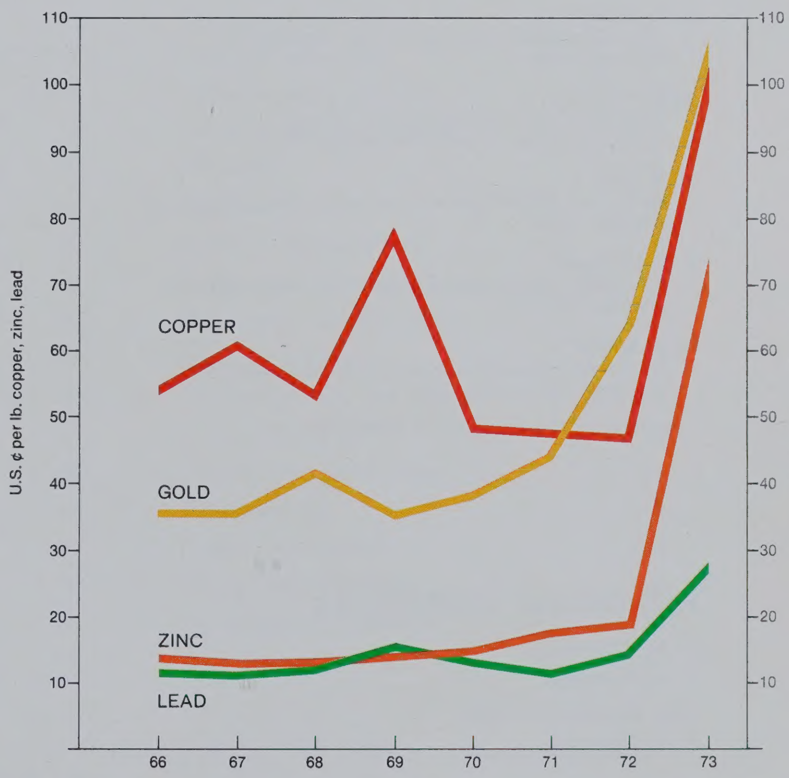
A billion dollar corporation: 93% owned by 28,000 Canadians

# FINANCIAL SUMMARY

| | 1973 | 1972 | 1971 | 1970 | 1969 | 1968 | 1967 | 1966 |
|---|---|---|---|---|---|---|---|---|
| | | | | (in millions) | | | | |
| **Operating revenue** | **$849** | $581 | $462 | $457 | $428 | $426 | $373 | $288 |
| **Share of after tax profits of associated Companies** | **68** | 28 | 16 | 23 | 18 | 10 | 8 | 13 |
| **Depreciation and preproduction** | **49** | 33 | 24 | 21 | 17 | 16 | 13 | 14 |
| **Taxes** | **54** | 36 | 34 | 37 | 37 | 34 | 35 | 30 |
| **Earnings** | **121** | 69 | 61 | 64 | 59 | 56 | 57 | 57 |
| **Working capital** | **147** | 129 | 139 | 132 | 76 | 134 | 108 | 98 |
| **Capital expenditures** | **94** | 118 | 93 | 95 | 70 | 58 | 47 | 41 |
| **Investments and advances** | **221** | 205 | 190 | 222 | 205 | 170 | 148 | 88 |
| **Long-term debt** | **336** | 350 | 321 | 224 | 178 | 224 | 85 | 9 |

Noranda Group sales of copper, zinc and lead in 1973 were not at these London Market prices, as they do not apply in North America where the bulk of Noranda's productions are consumed.

The published Canadian price averages for December, 1973, for copper, zinc and lead were 74¢, 30¢ and 17½¢ respectively.




LONDON METAL EXCHANGE AND LONDON BULLION MARKET
AVERAGE DECEMBER SETTLEMENT PRICES

**ANNUAL MEETING** April 26th, 1974, 2:30 p.m., Royal York Hotel, Toronto.

Head Office address — P.O. Box 45, Commerce Court West, Toronto, M5L 1B6

## DIRECTORS

**John R. Bradfield*,**
Chairman, Noranda Mines, Toronto—Elected 1950

**James C. Dudley,**
Independent Financial Consultant, New York—Elected 1970

**Louis Hébert,**
President, Banque Canadienne Nationale, Montreal—Elected 1968

**William James*,**
President, Kerr Addison Mines Limited, Toronto — Elected 1968

**L. G. Lumbers*,**
Chairman, Noranda Manufacturing Ltd., Toronto—Elected 1962

**D. E. Mitchell,**
President and Chief Executive Officer, Great Plains Development Company of Canada Ltd., Calgary—Elected 1973

**André Monast,**
Partner—St. Laurent, Monast, Desmeules & Walters, Quebec—Elected 1966

**R. V. Porritt*,**
Vice-Chairman, Noranda Mines, Toronto—Elected 1958

**Alfred Powis*,**
President and Chief Executive Officer, Noranda Mines, Toronto—Elected 1964

**W. S. Row*,**
Executive Vice-President, Noranda Mines, Toronto—Elected 1960

**J. D. Simpson,**
Chairman, Placer Development Ltd., Vancouver—Elected 1962

**W. P. Wilder*,**
Chairman, Canadian Arctic Gas Studies Limited, Toronto—Elected 1966

* Member of the Executive Committee

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Vice-President—Mine Projects

**K. C. Hendrick,**
Vice-President—Sales

**J. O. Hinds,**
Executive Assistant to the President

**L. G. Lumbers,**
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**R. L. Pepall,**
General Counsel

**R. V. Porritt,**
Vice-Chairman

**R. P. Riggin,**
Vice-President—Corporate Relations

**D. E. G. Schmitt,**
Vice-President—Mines

**A. H. Zimmerman,**
Vice-President—Comptroller

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**F. M. Connell**

**A. O. Dufresne**

**Hon. George B. Foster**

**L. H. Timmins**

## TRANSFER AGENT AND REGISTRAR

**Canada Permanent Trust Company,**
Toronto, Vancouver, Calgary, Saskatoon, Winnipeg, Montreal, Saint John, N.B., Halifax, Charlottetown and St. John's, Nfld.

**The Chase Manhattan Bank,** New York, N.Y.

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*An English or French edition of this Report may be obtained from the head office of the Company at P.O. Box 45, Commerce Court West, Toronto, Ontario M5L 1B6.*

*On peut se procurer la version française ou anglaise de ce rapport en en faisant la demande au siège social de la compagnie, B.P. 45, Commerce Court West, Toronto, Ontario M5L 1B6.*

# DIRECTORS' REPORT

## Earnings and Dividends

In spite of several serious problems, 1973 was an exceptional year and earnings increased 75% to a new record level of $121 million, equal to $5.17 per share.

| Earnings per share | 1973 | 1972 |
|---|---|---|
| From: mining and metallurgy | $ 4.56 | $ 2.82 |
| manufacturing | .99 | .48 |
| forest products | .64 | .46 |
| | $ 6.19 | $ 3.76 |
| Less: common costs | 1.02 | .81 |
| | $ 5.17 | $ 2.95 |

For the first time, reported earnings include Noranda's equity in the undistributed earnings of corporations less than 50% owned, and 1972 results have been restated on the same basis. These earnings are only available to Noranda to the extent of dividends paid. This change in accounting procedure had a significant impact on comparative results. Had the change not been made, 1973 earnings per share would have been $3.96 compared with $2.65 in 1972, an increase of 49%.

Reflecting buoyant world economic conditions, demand for virtually all of the products of the Noranda group was strong throughout the year, and prices of most mine products rose to record levels. This resulted in substantial inventory profits, particularly during the fourth quarter. However, production of copper was much lower than originally expected due to a two month strike at the Geco Division and a late and difficult start-up of the expanded capacity at Gaspé Copper Mines. In addition, rail slowdowns and strikes seriously disrupted operations, particularly in copper smelting and refining. To ensure that the needs of Canadian manufacturers would be met, the resulting shortfall in production required that all of Noranda's own production of copper metal be sold in the domestic market, where prices were considerably less than overseas quotations. Despite these problems, earnings from mining and metallurgical operations rose more than 60%, reflecting higher prices, inventory gains and the impact of new capacity.

Buoyant economic conditions, better prices and new capacity also resulted in improved results from manufacturing and forest products operations. Earnings from manufacturing also benefitted from inventory gains and more than doubled. Earnings from forest products rose nearly 40% despite the absorption of a $2.7 million loss after taxes on the liquidation of Fundy Forest Industries.

Aside from general business conditions, the improved results reflect the impact of major projects involving capital expenditures of more than $600 million completed by Noranda and associated companies during the past five years. Some of these are only now beginning to reach their earnings potential.

Effective July 6, all outstanding common shares became Class A and new Class B shares became available. The two classes are interconvertible but dividends receive different treatment for tax purposes. On the common or Class A shares, four quarterly dividends of 30¢, 35¢, 35¢ and 40¢ per share were paid, bringing the total for the year to $1.40 per share compared with $1.20 in 1972.

## Major Developments

The two-year program of expansion of copper producing facilities in Quebec was substantially completed during the year at a total cost of about $150 million. This involved a doubling in Gaspé Copper's mine production of copper in concentrate to 70,000 tons per year, a 27% increase in Horne and Gaspé smelting capacity to 400,000 tons per year and a 37% increase in refining capacity to 480,000 tons per year. In addition, a 300,000 tons per year acid plant installed at the Gaspé smelter to control sulphur dioxide emissions is now in operation.

Construction labour problems delayed completion of the expansion at Gaspé Copper, and this was followed by serious start-up difficulties. By the year end, however, these had been largely overcome.

Part of the expanded capacity was provided by a commercial-sized Noranda Continuous Smelting Process reactor at the Horne smelter. This was placed in production without undue difficulty and plant scale tests late in 1973 indicated that capacity can be doubled through the use of oxygen, the cost of which is more than offset by a 90% reduction in fuel consumption. The Noranda Process now appears to have a significant advantage over other smelting methods, and preparations are underway to exploit it commercially.

At the Horne smelter, it is now planned to install an oxygen plant and slag milling facilities to add 55,000 tons of copper per year to capacity. To reduce sulphur dioxide and other emissions to acceptable levels, a 450,000 ton per year acid plant will be installed to treat reactor gases. Total cost of this program will be about $37 million.

A proposal has been made to the government of South Korea under which Noranda, in equal partnership with a South Korean copper fabricator, would install a reactor and refinery to produce 100,000 metric tons of copper per year from custom concentrates.

The program to expand the capacity of the Canadian Electrolytic Zinc plant at Valleyfield by 50% to 225,000 tons of metal per year is well underway, with completion scheduled for mid-1975. Due to changes in scope and unprecedented inflation in construction costs, the outlay for this project is now expected to exceed $45 million.

An agreement has been reached under which Noranda will arrange for $6 million of interim financing for Tara Exploration and Development pending issue of the mining lease on its major zinc-lead deposit in Ireland. In return, Noranda will receive warrants to purchase 100,000 Tara shares at $16 per share. Noranda has also acquired, on the market, in excess of 12% of Tara's outstanding shares. In addition, Noranda and Tara have agreed to conduct a feasibility study into construction of an electrolytic zinc reduction plant in Ireland to treat Tara and possibly other concentrates. If commercially feasible, such a plant would be constructed with completion scheduled for the late 1970's, to be owned equally by Noranda and the Tara group.

Preparations are underway for the sinking of a second shaft at the Brunswick Mining and Smelting number 12 mine. When completed in the late 1970's, together with plant modifications, this will permit expanded underground production, which will more than offset the effect of depletion of the number 6 open pit mine. Total capital cost will be in the order of $28.5 million.

Canada Wire and Cable is adding to its capacity in Canada and undertaking new ventures in Australia, Brazil, and Nigeria. Noranda Metal Industries is expanding its copper sheet facilities at Fergus, Ontario and is planning a new $18 million operation to produce specialty tubes for nuclear power plants. The possibility of doubling the capacity of the Noranda Aluminum plant at New Madrid, Missouri, under an existing power supply agreement, is being studied.

## Financial

Capital expenditures and investments during 1973 totalled $109 million, considerably less than in 1972, and long term debt was reduced by $14 million. Retained cash flow from operations was $103 million, and net working capital increased by $17 million.

During 1974, capital expenditures are expected to be somewhat higher than in 1973 but a further increase in net working capital is anticipated.

## Outlook

The present outlook is more than normally obscure due to potential shortages of petroleum products. Such shortages, if they reduce economic activity throughout the world, will adversely affect the demand for most products of the Noranda group. Normally, reduced demand would result in lower prices, but petroleum shortages could also curtail world production of many of these products. For example, Noranda's smelting and refining operations are heavily dependent on petroleum products and could be seriously affected by shortages.

At the same time, the rapid escalation in costs is of serious concern. Petroleum and construction costs are spectacular examples, but all other costs are rising at an alarming rate. This will, in future, require a much higher level of prices for the products of the Noranda group than was considered adequate a year ago.

Our best guess at present is that the operations of the Noranda group will not be seriously affected by energy shortages in 1974, and output of copper should be significantly higher than in 1973. Consumption of many of the Noranda group's products may show little growth in 1974 and, in some cases, could decline. In these circumstances, prices for some products will likely moderate from the very high levels reached in 1973, particularly in overseas markets, but should not drop back to the depressed levels of 1972. If events develop this way, 1974 should be a satisfactory year for Noranda.

On behalf of the Board,

Alfred Powis

President.

Toronto, February 15, 1974.

K. C. Hendrick makes a point during a discussion with Messrs. Powis and Schmitt.

# MARKETS

Consumption of metals exceeded available capacities as the growth in the major industrial economies accelerated throughout 1973. Record high prices resulted for copper, zinc, lead, gold and silver. Demand will moderate in 1974 but prices are expected to remain satisfactory relative to the low levels in 1971 and 1972.

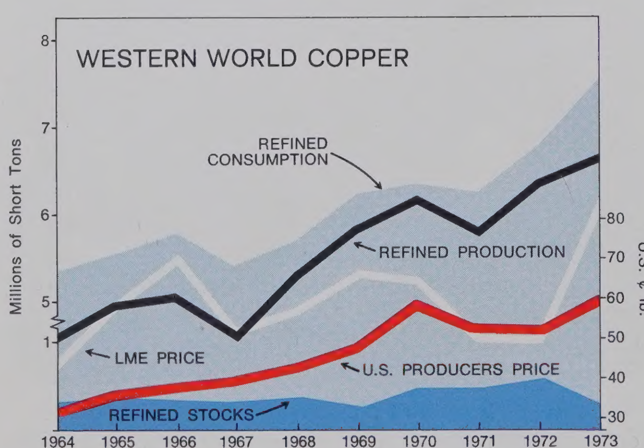
Price controls aggravated the shortages in the United States and were a prime cause of the excessive commodity exchange prices. The U.S. Cost of Living Council recognized that such controls on international commodities were counterproductive and granted exemptions in December.

## Copper

Western World consumption rose an exceptional 10%, while refined output increased only 3% due to strikes and production delays. The resulting shortfall was covered mainly from commodity exchange stocks, which decreased 217,000 tons to 43,000 tons at the year end, and from refinery and fabricator inventories.

The London Metal Exchange price rose from 48¢ U.S. in January to a record $1.20 in early December. Three increases in the first quarter took the U.S. producers' price from 50½¢ to 60¢. Phase IV controls prevented further change until December when increases to 68¢ were permitted. Noranda's price in North America was equivalent to U.S. producer levels until July when it increased to 67¢, and then in October to 74¢.

The prospect of release of the final 210,000 tons of copper in the U.S. strategic stockpile, the uncertain economic outlook, and the impact of the energy crisis caused LME prices to ease to 91½¢ at the year end.

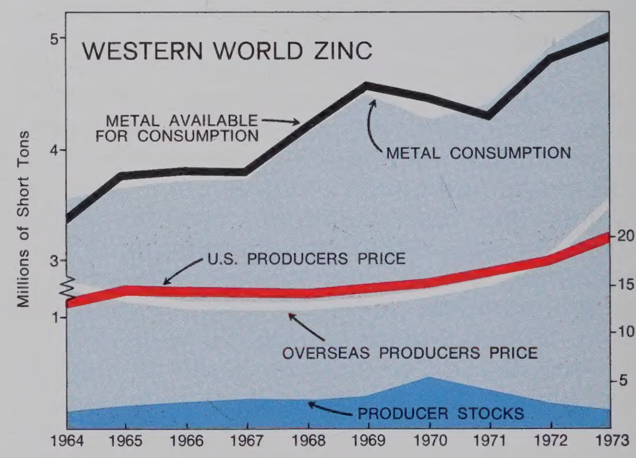



## Zinc

Production, reduced by earlier U.S. smelter closures, was unable to meet the 10% rise in world consumption. Serious supply shortages developed despite U.S. stockpile releases of 267,000 tons and a reduction of 120,000 tons in industry stocks.

U.S. prices rose from 18½¢ to 20¼¢ by April and then were frozen until December when, exempted by the Cost of Living Council, they rose to 28-32¢. Noranda's North American price increased from 19½¢ in January to 21¢ in March, 23¢ in June, 25¢ in July, 28¢ in September and 31¢ in December. Similarly, the overseas producer price rose in five steps from 18.4¢ in January to 32.1¢ in November. Marginal quantities were sold by merchants at prices up to $1 per pound as the LME price soared to an unrealistic 99.5¢ in December.

There was no action by the U.S. Congress on industry proposals to apply higher duties on imports of zinc and lead metal and lead concentrates in excess of variable quotas.



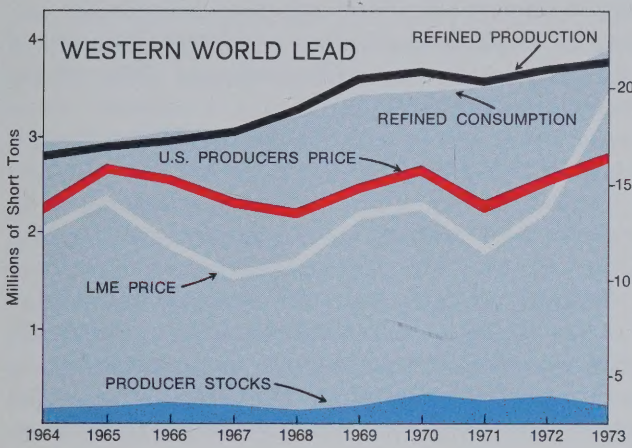

## Lead

The consumption of lead increased 6½% and outpaced production, up 2½%. As a result, 246,000 tons were withdrawn from the U.S. stockpile and producers' stocks declined 75,000 tons.

In the United States, the price rose in the first quarter by 1½¢ to 16½¢, and then to 19¢ in December when price controls were lifted. The Canadian price moved from 15½¢ to 16¢ in March, and to 17½¢ in October. The LME quotation exceeded the U.S. price for the first time in eight years and reached 35¢ in December.

Due to the oil shortage, the U.K. program to reduce the use of lead in gasoline will be delayed. The U.S. Tariff Commission made an injury finding

on the dumping action brought against lead imports from Canada and Australia.




### Gold

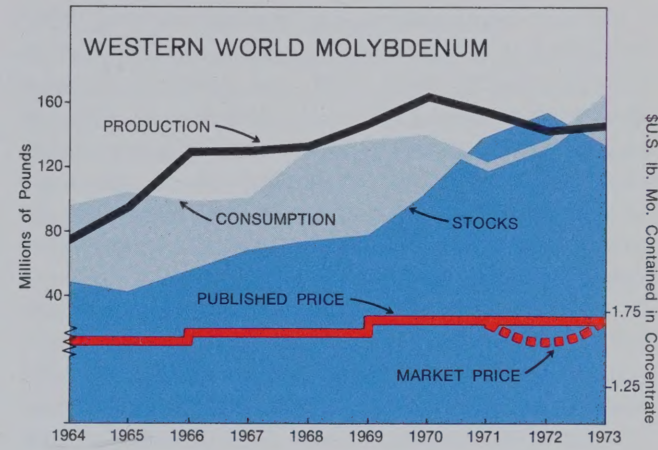
Reflecting worldwide currency uncertainties and the second dollar devaluation, the gold price increased dramatically from $65 per ounce in January to a high of $127 in July. As monetary conditions stabilized, prices declined to $90. On November 13, the U.S.A. and six West European countries announced they would no longer be bound to sell gold at an official price of $42.2. By year end the market price had strengthened to $112.

### Silver

The pattern of previous years continued, with consumption exceeding mine production and stocks declining. Speculative pressures were strong and prices rose steadily from $2 per ounce in January to $3.25 in December.

### Molybdenum

Consumption increased by more than 23% to 165 million pounds as heavy demand for capital goods resulted in high production levels of specialty, stainless and tool steels. Although full production of concentrate was resumed by mid-year, industry and consumer stocks decreased 20 million pounds to 134 million pounds, or approximately normal requirements. The remaining U.S. stockpile of 43.7 million pounds was released and will be sold to U.S. industry on a long-term basis. Prices were slow to respond to the improved conditions but did recover by the year end to published levels established in 1969.




### Aluminum

Consumption of aluminum increased rapidly in 1973, and U.S. shipments were 20% above 1972. Increased demand, coupled with power related production curtailments in the U.S. and strikes in Canada and France, caused some shortages late in the year. Producer inventories declined as did the U.S. Government stockpile which was reduced to its legal limit.

Government controls held U.S. prices at unrealistic levels throughout most of the year. In December some price relief was granted allowing prices to rise to 29¢ per pound. Year end European and Japanese prices were 39-42¢ per pound.

### Fertilizers

Prices for phosphates and potash improved during the year in response to higher domestic and overseas fertilizer requirements. World demand is expected to remain strong through 1974 as depleted food balances are rebuilt. The international potash supply position continues to be influenced by prorationing in Saskatchewan and phosphate capacity will remain tight.

Motorship Silverpelerin is on long term lease for shipments of sulphuric acid from Gaspé.

# EXPLORATION

Mineral exploration expenditure during 1973 amounted to $11.4 million compared to $8.8 million in 1972. Of the total, 47% was spent in Canada, 23% in Australia, 17% in the U.S.A. and 13% on various projects and examinations in other countries. A number of interesting prospects have developed from the year's work, including a potash property in New Mexico, U.S.A., and a zinc occurrence in Brazil.

Larger programs are being undertaken in the Yukon, Northwest Territories and in Alaska.

Development work continues on previously held base metal properties in British Columbia, Newfoundland and Ireland and on a vanadium property in the U.S.A. The Koongarra uranium deposit in Australia will be brought into production after negotiation of lease and sales contracts.

Noranda has agreed with Kennecott Copper Corporation, Rio Tinto-Zinc, Consolidated Gold Fields and Mitsubishi Corporation to form a joint venture for the purpose of investigating the feasibility of mining manganese nodules from the ocean floor. The agreement anticipates joint participation in any resulting production project. Noranda has a 10% interest.

Under agreement between Noranda (50%), Orchan Mines (25%) and Pamour Porcupine Mines (25%), Mining Corporation of Canada (1964) has been reactivated and is investigating the production potential of several smaller undeveloped gold and base metal properties. The first project is the New Joburke property near the Porcupine area in northern Ontario.

## NORTHERN OIL EXPLORERS

Started late in 1966, this venture failed to discover large gas or oil reserves and has been terminated. The proven oil and gas reserves and all lands were offered for sale and the Noranda-Gaspé portion of the accepted bids amounted to $3.2 million. Acceptable bids were not received for some lands which will be disposed of privately.

In the seven years during which Noranda and Gaspé contributed $8.2 million for exploration, proven reserves of 1,009,000 barrels of oil and condensate, and 40,393,000 mcf of gas were established. Production in 1973 consisted of 16,450 barrels of oil and condensate, 139,500 gallons of propane and butane, and 350 million cf of gas from which the Noranda-Gaspé 20% of net revenue was $72,000.

## PANARCTIC OILS

Sustaining its 4.5% interest, Noranda subscribed $4.2 million for Panarctic's exploration programs over the past six years.

Panarctic to date made 5 major gas discoveries but has found no economic oil. During 1973, 23 wells were drilled and 24 wells, including 8 drilling at January 1, are planned for 1974. To date, 71 exploration and development wells have been drilled of which 10 are gas wells in 5 gas fields. Indicated gas reserves are estimated to be 10 to 15 trillion cubic feet. Threshold reserves for a pipeline justification are estimated in the order of 30 trillion cubic feet.

Panarctic has participated in the Polar Gas Study Group since its inception, the purpose of which was to determine the feasibility of delivering gas by pipeline from the Arctic Islands to eastern North American markets. The work now continues on a much larger scale under the auspices of the Polar Gas Project, the president of which is Mr. John Houlding. Panarctic's share of the expense is nominal.

## CANADIAN HUNTER EXPLORATION

This new venture in oil exploration in Canada was established in mid-year. Annual exploration costs of at least $2.5 million are expected, with further expenditures for development and production as justified by the results of exploration.

At year end some 320,000 gross acres or 247,000 net acres of land had been acquired. Eight wells had been drilled and two were drilling. Three of these will be producing oil wells and two others may produce after further testing.

## RESEARCH

Development work on the hydrometallurgical process for the treatment of copper concentrate continues to show promise.

A new process for the hydrometallurgical conversion of molybdenum concentrate to technical grade oxide has been developed on a laboratory scale. Studies in ferrous powder metallurgy, cast irons, and high-strength low alloy steels were initiated with the objective of finding new applications for molybdenum.

A major expansion of the research and development facilities was started in 1973 which, when completed in early 1975, will double the size of the Centre in Pointe Claire, Quebec.

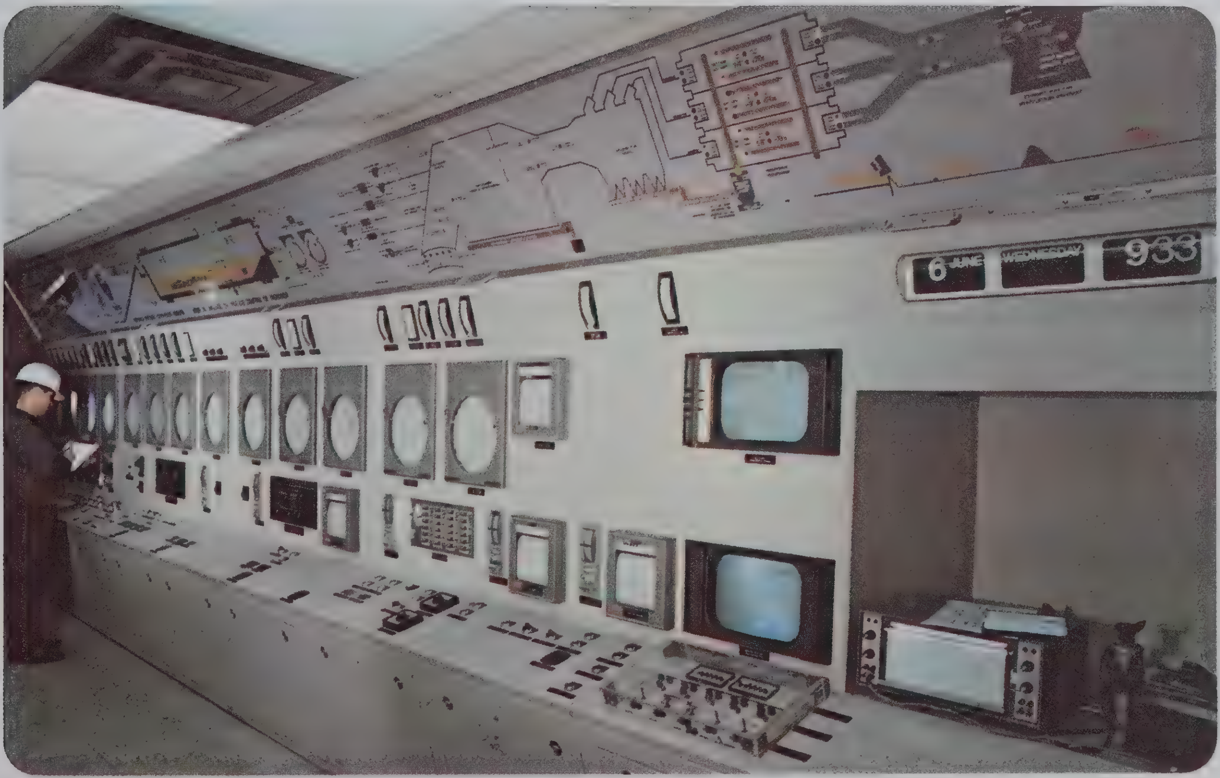
Expenditures at the Research Centre in 1973 amounted to $2.1 million. The total staff at year end was 115 of whom 50 were scientists.

## ENVIRONMENTAL CONTROL

Major installations of air emission and water control equipment were completed at a number of locations during the year. These included additional electrostatic precipitators, baghouses, scrubbers, a sulphuric acid plant and water recycling systems. Discharges to the environment have been appreciably reduced by these measures.

Efforts to decrease or eliminate the acid drainage from inactive sulphide tailings areas are being directed towards diversions of fresh water, the construction of clarification ponds and revegetation. In addition to trial uses of various combinations of seed, fertilizer, and lime, research involves alternative soil covers such as bentonite, cement and asphaltic mixtures.

Important data has been developed at the joint "Government-Industry" waste water treatment plant at the Brunswick minesite. To date, three different acidic mine waters have been treated and the best attainable effluent levels for each has been determined. The knowledge gained at this pilot plant will be of value in the establishment of effluent guidelines at other locations.




Control panel for the Noranda Continuous Smelting Process reactor. The closed circuit TV, and a schematic of the operation are shown together with multiple control meters and signals.

# MINING AND METALLURGICAL

## HORNE MINE (wholly-owned)

The mine produced 550,000 tons of ore averaging 2.42% copper and 0.145 ounces of gold per ton. Fluxing ore produced were 45,000 tons from Joliet and 420,000 tons from the Don Rouyn pit.

Sulphide ore reserves at Dec. 31, 1973 were 500,000 tons averaging 2.40% copper and 0.140 ounces of gold per ton. There is enough ore to maintain the mine well into 1975. The Chadbourne deposit of 1,100,000 tons averaging 0.11 ounces of gold per ton is being re-evaluated with the increased price of gold.

The concentrator treated 480,000 tons of sulphide ore and 130,000 tons of smelter reactor slag. Copper concentrates produced were 79,000 tons and 25,500 tons respectively.

### Smelter

The expansion project with the new reactor came on stream in mid-year. It has been operated successfully, with and without oxygen enriched air, and is contributing to increased smelter throughput.

| | Material Smelted | | Copper Content of Anodes Produced |
|---|---|---|---|
| | Noranda (Tons) | Custom (Tons) | (Tons) |
| 1973 | 725,000 | 825,000 | 260,000 |
| 1972 | 705,000 | 780,000 | 236,000 |
| 1971 | 724,000 | 825,500 | 233,000 |
| 1970 | 769,000 | 777,000 | 211,000 |
| 1969 | 811,000 | 776,500 | 221,000 |

## GECO MINE (wholly-owned)

Operations were stopped for 65 days by a strike which ended June 10 with the signing of a 3-year agreement.

During the operating periods, 1,464,000 tons of ore were treated at a rate which averaged 4,880 tons per day, grading 1.70% copper, 4.53% zinc and 1.63 oz. of silver per ton. The metal content of concentrates produced was 22,900 tons of copper, 54,500 tons of zinc, 1,600 tons of lead and 1,684,000 ounces of silver. Considerable stockpiling and reclamation of concentrates was required because of disruptions in rail freight service and 10,250 tons of zinc concentrate remained in stockpile at year-end.

Since resumption of work in June, operations have been hampered by a shortage of skilled employees, there being few qualified applicants to replace those who did not return after the strike.

Year-end ore reserves were slightly depleted to 29.2 million tons averaging 1.90% copper, 3.98% zinc and 1.66 ounces of silver per ton.

## GASPÉ COPPER MINES (98.7% interest)

Net earnings for the year were $1.2 million compared to $7.9 million in 1972. The smelter was shut down in May and June to install the new equipment. Startup difficulties also were experienced and as a result copper production and revenues were lower than in 1972.

### Needle Mountain

The mine produced 1,212,000 tons of ore averaging 1.12% copper, including 117,000 tons from the open pit. Ore reserves decreased by the tonnage mined to 24,000,000 tons averaging 1.33% copper.

The concentrator produced 43,600 tons of concentrate containing 11,400 tons of copper and concentrate containing 123,000 lbs. of molybdenum.

### Copper Mountain

The open pit produced 5,588,000 tons of ore averaging 0.56% copper while 16,200,000 tons of waste, low grade ore and oxide ore were removed. Sulphide ore reserves decreased by the tonnage mined to 221 million tons averaging 0.39% copper while oxide ore reserves remained at 34 million tons averaging 0.45% copper.

The concentrators produced 97,030 tons of concentrate containing 22,730 tons of copper and concentrate containing 136,000 lbs. of molybdenum. The new 22,500 tons per day sulphide ore concentrator started up in July and attained rated capacity in December.

The Minister of National Revenue has confirmed the assessment which denies a three-year federal income tax exemption for the Copper Mountain Mine. This decision will be appealed.

### Smelter

| | Material Smelted | | Copper Content of Anodes Produced |
|---|---|---|---|
| | Gaspé (tons) | Custom (tons) | (tons) |
| 1973* | 107,400 | 99,800 | 49,300 |
| 1972 | 236,800 | 118,000 | 63,800 |
| 1971 | 221,800 | 156,000 | 73,800 |
| 1970 | 227,500 | 141,500 | 69,900 |

* 40,200 tons of concentrate containing 10,500 tons of copper were diverted for treatment elsewhere.

### Expansion Program

Approximately $125 million has been spent or committed on the Copper Mountain expansion project. The new acid plant was started-up in December and the oxide ore leach plant will be ready in the second quarter of 1974.

## CANADIAN COPPER REFINERS (wholly-owned)

The eighteen new tank house sections are now in service bringing the refinery capacity to 480,000 tons a year. This enables C.C.R. to treat the planned increases in production from the Noranda smelter and Gaspé Copper.

The new parting plant for silver and gold refining went into operation in May. This provides for increased production, better efficiency and improved working conditions.

New firing systems on the oil-fired anode furnaces have effected a marked reduction in fuel consumption. A study is under way for the use of oxygen to shorten the process cycle in these furnaces.

Equipment to produce semi-continuously cast cakes and billets is on order. This will improve the quality at lower cost.

Refined Metal Production

| | Copper (tons) | Silver (ounces) | Gold (ounces) |
|---|---|---|---|
| 1973 | 383,000 | 14,599,000 | 351,000 |
| 1972 | 376,000 | 14,165,000 | 377,000 |
| 1971 | 342,000 | 12,885,000 | 405,000 |
| 1970 | 349,000 | 12,447,000 | 424,000 |
| 1969 | 327,000 | 12,360,000 | 389,000 |

## BRENDA MINES (50% interest)

Higher metal prices and a large increase in molybdenum sales combined to produce a record net profit of $15.5 million, despite loss of production during a 40-day strike.

Production was 8.9 million tons of milling ore averaging 0.203% copper and 0.058% molybdenum, as well as 2.8 million tons of low grade ore which was stockpiled. Waste stripping totalled 4.5 million tons. The milling rate averaged 27,454 tons per operating day compared to 25,965 in 1972. Metal recoveries were 89.1% for copper in 58,800 tons of concentrate and 81.7% for molybdenum in 7,373 tons of leached concentrate. Operation of a new regrind circuit raised the copper content of concentrate to 27.25% from 21.58% in 1972 and studies are underway toward further improvement in metal recoveries. All copper concentrate was shipped to Japan during 1973 and the restriction on deliveries was formally removed on October 31. Molybdenum sales exceeded production by 67%, reducing the metal content of inventories to 5.3 million pounds from 11.0 million at the previous year end.

The $19.6 million First and $7 million Second Mortgage Bonds were retired. The $29.8 million Third Mortgage Bonds remain outstanding.

Children enjoy the swimming pool at Manitouwadge, Ontario, site of the Geco Mine. The golf course under construction is in the background.

## BRUNSWICK MINING AND SMELTING
(64.2% interest)

There was a net profit of $9.9 million in 1973 compared with a net loss of $374,000 in 1972. Operations were improved and metal prices were higher.

The concentrator treated 3,288,000 tons of ore, averaging 9.8% combined lead and zinc, approximately the same as in 1972. Improved metallurgy produced higher grade lead concentrate and record tonnages of zinc and copper concentrates. The zinc-lead ore reserves at No. 12 Mine show a significant increase in tonnage while No. 6 Mine ore reserves decreased in tonnage and grade.

### Ore Reserves

| Zinc-Lead | Tons (000) | Zinc % | Lead % | Silver oz. | Copper % |
|---|---|---|---|---|---|
| No. 12 Mine | | | | | |
| Proven | 63,688 | 9.28 | 3.76 | 2.74 | 0.27 |
| Probable | 21,032 | 9.69 | 4.11 | 2.95 | 0.29 |
| No. 6 Mine | | | | | |
| Proven | 3,442 | 5.03 | 1.80 | 1.79 | 0.42 |
| Copper | | | | | |
| Proven | 9,474 | 1.13 | 0.40 | 0.85 | 1.11 |

The conversion of the zinc-lead smelter to a lead smelter was completed in March at a cost of $7.5 million, well within the estimate of $10 million. Start-up difficulties were overcome by the year end and monthly operating rates in excess of 5,000 tons of refined lead attained.

| Production | 1973 | 1972 | |
|---|---|---|---|
| Zinc Concentrate | 330,800 | 320,800 | tons |
| Copper Concentrate | 19,900 | 17,600 | " |
| Refined Lead | 34,450 | 35,980* | " |
| Sulphuric Acid | 100,200 | 92,430 | " |
| Silver | 1,254,700 | 1,562,800 | oz. |

* Includes 7,100 tons of lead purchased and up-graded.

## EMPRESA MINERA DE EL SETENTRION
(60.5% interest)

The Nicaraguan subsidiary mined and treated 124,700 tons of ore averaging 0.57 ounces of gold per ton. The lower gold content, as compared to 0.70 ounces in 1972, was mainly due to mining to lower marginal grades resulting from higher gold prices. Work continued on ventilation and pumping facilities for hot water control, preparatory to deeper mining in the high grade Panteon vein. Ore reserves at year end were 315,000 tons averaging 0.64 ounces of gold per ton compared to 254,000 tons and 0.68 oz. grade at December 31, 1972. Net earnings were $3.2 million compared to $2.1 million in 1972.

## CENTRAL CANADA POTASH (51% interest)

The restrictive flat prorationing imposed by the Saskatchewan Government remains in effect. Although C.C.P.'s contractual market required 1,500,000 tons of muriate of potash, production and revenue were severely restricted to 681,000 tons having a market value of some $13.6 million or 45% of capacity as compared with 1,046,000 tons and 70% of capacity in 1972. In addition, some two million farmer co-operative members, who have a collective 49% interest in the operation through C.F. Industries, were forced to purchase the short-fall from competitors.

The trial date for the court action, initiated in December 1972 to challenge the constitutionality of the Province's prorationing program and for damages, has been delayed by a variety of motions by the Government of Saskatchewan. Recently, the Federal Government intervened as a plaintiff in the case.

Underground linear advance was 20 miles for a total of 96 miles since mining began in 1969. Some 1,795,000 tons of ore averaging 26.4% $K_2O$ equivalent were milled. Ore reserves exceed 590 million tons of recoverable ore averaging 27.5% $K_2O$ equivalent.

Shipments totalled 729,300 tons of muriate. A tenth compactor was installed in response to the increased market demand for coarse and granular product but deliveries during the latter half of the year were disrupted by shipment delays due to the railway labour strike and a shortage of rail cars. Product prices have strengthened and plant operations were extended from 5 to 7 days per week in December although there is a continuing shortage of qualified applicants for work. Year-end inventory of muriate was 149,600 tons.

Effective last October the Saskatchewan Government doubled the prorationing fee to $1.20 per ton of muriate.

## EMPRESA FLUORSPAR
(Interest: 74.6% direct, 14.6% indirect)

With fluorspar in good demand during the year, Cia Minera Las Cuevas recovered and shipped 301,000 tons, mainly of metallurgical grade, from 394,000 tons mined. Test milling of the residue is being carried on to determine the economics of production of acid grade concentrate. Net earnings decreased to $1.1 million from $3.1 million in 1972 when $1.4 million was received from Mexican shareholders in final payment of their 51% interest in Las Cuevas.

## BELL COPPER (wholly-owned)

A million tons of low-grade ore grading 0.424% copper was stockpiled, while waste stripping amounted to 2.4 million tons. The concentrator treated 4,114,000 tons grading 0.587% copper for a daily average of 11,272 tons. Production was 77,800 tons of concentrate containing 20,300 tons of copper and 25,200 ounces of gold. Shipments of concentrate totalled 75,160 tons of which 63% was smelted in Japan and the remainder at Noranda, Quebec. Metal recovery of 84.1% was 2% lower than projected due to the continued presence of copper oxide. Copper and gold prices provided a higher than forecast revenue and offset production losses due to a one-week illegal strike and a shortage of skilled tradesmen and operating personnel. Twenty additional housing units are near completion in the village of Granisle.

## BRYNNOR MINES (wholly-owned)

Preparations for resumption of production from the Boss Mountain mine in early 1974 were prompted by improvement in the market demand and price for molybdenite. Uncertainties due to labour supply, steeply rising costs for materials and government requirements in British Columbia will affect the extent of operations. Production will be from the higher grade proven ore reserves while the property potential is being re-examined.

## LANGMUIR (51% interest)

A previously reported delay in shaft completion and mine development set back the schedule for installation of the underground crusher and full production from this joint venture. The concentrator was started in June. However, the ore from level development and stope preparation was only sufficient to supply the mill at half its rated capacity. A total of 67,000 tons averaging 1.54% nickel was treated to produce 8,080 tons of concentrate containing 1,464,300 pounds of nickel. Ore reserves were 1.5 million tons averaging 1.72% nickel, with increased allowance for dilution. Capital and preproduction costs amounted to $11.6 million.

Aerial view of Manitouwadge illustrates the well planned layout of the town.
Recreation centre, swimming pool and golf course are in the lower left corner.

## PAMOUR PORCUPINE MINES (48.8% interest)

Net earnings were dramatically improved to $2.8 million from $0.8 million in 1972, due mainly to the higher prices for gold and increased production resulting from consolidation of operations in the Porcupine area. Sales of 118,230 oz. of gold from all sources averaged $93.79 per ounce.

The mining claims, plant, and other assets of the Schumacher Division of McIntyre Porcupine Mines Limited were purchased for $4,500,000 effective November 27. The mine, now known as the Schumacher Division of Pamour, will continue to operate as a gold and copper producer.

Some 134,380 ounces of gold bullion and 1,276 tons of concentrate containing 356 tons of copper and 1,450 ounces of gold were produced from 966,000 tons of ore from the combined operations of Pamour Nos. 1, 2 and 3 mines, including the Schumacher Division since Nov. 27. Production terminated at the No. 2 mine in May and trucking of ore to the Pamour mill from the No. 3 mine commenced in March. Facilities to receive trucked ore for crushing and milling at No. 1 mine-site were improved and some 17,000 tons of development ore from a property in the area were treated on toll in the Pamour mill.

A project to increase milling capability beyond 2,500 tons per day will be co-ordinated with plans for achieving full utilization of the treatment capacity at the Schumacher Division.

Ore reserves at Pamour's No. 1 and No. 3 mines totalled 2.5 million tons averaging 0.148 oz. gold per ton, and at the Schumacher Division were 2,600,000 tons averaging 0.7% copper and 0.03 oz. gold per ton, plus 426,700 tons averaging 0.283 oz. gold per ton.

Exploration activity in the Porcupine Area included drilling on the Porcupine Peninsular option which indicated a modest tonnage of low grade gold ore.

## ORCHAN MINES (Interest: 45.1% direct, 5.7% indirect)

Net earnings improved to $4.4 million from $3.3 million in 1972, due to higher metal prices and increased production.

Ore treated totalled 450,230 tons including 180,130 tons from the Garon Lake Division which averaged 3.33% zinc and 1.45% copper. The Orchan mine production of 270,100 tons averaging 7.39% zinc and 0.97% copper was lower than planned due to the shortage of labour.

Ore reserves in the Orchan mine were reduced to 1,600,000 tons averaging 8.7% zinc and 1.2% copper at year end, and at Garon Lake were 329,000 tons averaging 1.5% zinc and 1.8% copper.

At the Norita Division, a mining plant was erected, the shaft collar set through 60 feet of overburden, and shaft sinking is about to start. Earlier drilling had indicated 1,637,000 tons of ore averaging 7.6% zinc and 0.7% copper and production is scheduled for 1976.

A road was built 1.2 miles beyond the Garon Lake mine to the Radiore No. 2 property of the wholly-owned Bell Allard subsidiary and an adit decline is underway to develop 140,000 tons of 2% copper ore indicated by earlier drilling.

Pouring gold bars at
Pamour Porcupine Mines.

Garon Lake Division of Orchan Mines.

## MATTAGAMI LAKE MINES

**(Interest: 31.4% direct 7.3% indirect)**

Consolidated net earnings for the year were $33.5 million, or $5.06 per share compared to $12.4 million in 1972 before an extraordinary item. Four 30¢ dividends were paid, plus an extra 30¢. Tonnage milled was 1,387,000 tons, 3,800 tons per day, averaging 7.48% zinc, 0.57% copper, 0.84 ounces of silver and 0.016 ounces of gold. Metal recoveries were 74.5% for copper in 23,900 tons of concentrate and 91% for zinc in 178,100 tons of concentrate. A new regrind circuit increased the copper concentrate grade to 24.8% compared to 23.7% in 1972.

Diamond drilling of two ore zones on Claim Group 23, Sturgeon Lake area, Ontario, indicated 3,100,000 tons grading 6.20% zinc, 1.15% copper, 0.60% lead, 3.30 ounces of silver and 0.011 ounces of gold per ton.

At **Mattabi Mines,** open pit mining yielded 1,112,000 tons averaging 11.36% zinc, 1.10% copper, 1.06% lead and 5.30 ounces of silver per ton.

The milling rate averaged 3,046 tons per day. Metal recoveries were 88.7% for zinc in 202,500 tons of concentrate, 80.5% for copper in 38,600 tons of concentrate, 40.2% for lead in 12,700 tons of concentrate and 71.0% for silver totalling 4,182,000 ounces in the copper and lead concentrates.

Loan repayments totalled $16 million and at year end the outstanding debt was $29 million.

**Canadian Electrolytic Zinc** operated at capacity and produced 148,800 tons of zinc and 598,000 pounds of cadmium.

The rated capacity of the plant is being expanded from 400 to 620 tons of slab zinc per day. Shortages of a wide range of construction materials have caused some delays but the new capacity is expected to come on stream by mid-1975. Construction costs are escalating rapidly and the cost of the expansion project will be substantially higher than the original estimate.

**St. Lawrence Fertilizers** operated at capacity throughout the year and produced a record 105,000 tons. Prices improved and this together with high operating rates resulted in a modest profit. Recent process improvements should increase 1974 production by 10% and although the cost of raw materials has increased considerably, higher prices should maintain current profit levels. During 1973 the plant consumed 119,000 tons of by-product sulphuric acid from Canadian Electrolytic Zinc.

**Federated-Genco,** which is 40% owned by General Smelting, a subsidiary, produces a variety of metals and alloys based on lead, zinc and aluminum in addition to handling copper scrap. The year was profitable with strong markets and good prices for the whole range of products from the three plants in Lachine, Scarborough, and Burlington.

## PLACER DEVELOPMENT

**(Interest: 26.9% direct, 1.7% indirect)**

Placer's 1973 earnings were $71.8 million or $5.98 per share, compared with $1.39 per share in 1972. The shares were split two-for-one in May, 1973 and this is reflected in the foregoing figures.

The increase in earnings over the previous year reflects a full year of earnings from the Gibraltar Mine, improved profits from other affiliates due to higher prices for copper, silver and gold, and better molybdenum markets. Revenue from the sale of options on Marcopper shares and reduced taxes from the write-off of exploration expenses also contributed to improved earnings.

## CRAIGMONT **(Interest: 19.7% direct, 12.0% indirect)**

Although operations were suspended by a strike from September 16 onward, the production of copper in concentrate was only 6% lower than in the year ended October 31, 1972. Concentrate sales, comprising 1973 production and 13,500 tons from inventory, were 14,800 tons greater and the average settlement price for copper, at 73.45¢ per lb., was 24.7¢ higher. Despite increases in smelting and other costs, earnings rose to $10.0 million from $2.5 million in 1972, and working capital doubled to $15.2 million. The strike was still in effect at December 31st.

### KERR ADDISON MINES
**(Interest: 41.3% direct, 2.5% indirect)**

Net profit for the year was $9.9 million or $1.04 per share compared to 62 cents in 1972. Higher gold and base metal prices during the year and the continuation of operations at the Normetal and Joutel mines accounted for the increase in net profit. Dividends of $5,700,000 or 60 cents a share were paid in 1973. The year-end value of net current assets and investments at market value increased to $12.50 from $10.38 per share a year earlier.

Production at the Kerr Addison mine amounted to 127,650 ounces of gold from 296,000 tons of ore with a grade of 0.44 ounces per ton. Ore reserves at December 31 were 1,340,000 tons with a grade of 0.54 ounces of gold per ton compared with 1,300,000 with a grade of 0.57 ounces per ton at December 31, 1972. With the increase in the price of gold, lower grade material not previously classified as ore is now profitable and is included in the ore reserves. Other possibilities for additional ore are being investigated.

The **Normetal** mine which was expected to terminate operations during the third quarter of 1973 produced 25.0 million pounds of zinc and 7.5 million pounds of copper in concentrates and is now expected to operate into the second quarter of 1974.

The **Joutel** mine, 63% owned, produced 26.3 million pounds of zinc and 1.7 million pounds of copper in concentrates and is expected to operate into the third quarter of 1974.

The **Blue Hill** mine, 60% owned, had its first full year of operation and produced 44.8 million pounds of zinc and 1.8 million pounds of copper in concentrates.

Earnings from the 21% interest in the **Icon Sullivan** Joint Venture were higher.

With renewed interest in uranium, a study is underway on the 80% owned **Agnew Lake** deposit.

Mr. William James was appointed President in October, replacing Mr. J. H. Stovel who retired for health reasons. Mr. Stovel has played a very important part in the development of the Noranda Group during his thirty-six year association.

## MANUFACTURING

### CANADA WIRE & CABLE (wholly-owned)

Sales and earnings grew significantly and again achieved record levels. Investments in manufacturing facilities initiated previously enabled Canada Wire to benefit from the favourable domestic market conditions. Plant expansions and modernizations presently in progress will ensure that the growing demand for wire and cable products will be met.

The long term development of export markets resulted in increased business and expansion into new product lines.

Investment in foreign affiliates continues. During the year one new facility was brought into production and investments were made in two other operations. Sales and earnings of the nine foreign affiliates continue to grow, and income from these investments now makes a significant contribution.

### NORANDA METAL INDUSTRIES (wholly-owned)

Earnings again improved with plants operating at capacity throughout most of the year as strong demand continued for brass mill products from automotive, construction and electrical industries. The competitive position in domestic and overseas markets was also favourably affected by realignments of free world currencies. Plans are proceeding for a nuclear tube manufacturing plant in Canada. Expenditures were approved during the year to convert the Fergus, Ontario reroll mill into an integrated strip mill through addition of casting and finishing facilities.

### NORANDA ALUMINUM (wholly-owned)

Aluminum production was 72,900 tons or 104% of rated capacity. Shipments exceeded production, leaving a minimum year end metal inventory. Price controls in the U.S. market adversely affected operating results, with prices in overseas markets at year end being 10-12¢ per lb. higher than the controlled domestic price. Worldwide aluminum supply and demand should be in approximate balance during 1974. Plans are proceeding to prepare for the possible doubling of capacity at the reduction plant at New Madrid, Missouri. A judgement against the Carpenters Union for illegal strike action during construction in 1970 was made by a U.S. District Court. Damages awarded the company were $914,800.


Locations of Canada Wire and Cable's principal manufacturing interests.

## NORANDEX (wholly-owned)

Sales and earnings continued to improve as demand for aluminum building products remained strong. Profitability however was restrained due to U.S. Government controls. Four branches of the 88 branch system were closed as efforts continue to optimize and reduce distribution costs. Increased participation in the remodeling market should offset anticipated reductions in new residential construction.

## QUEBEC IRON FOUNDRIES (wholly-owned)

Demand for grinding media and mill liners was strong and operations of the foundry group quite satisfactory despite rapidly increased raw material costs. Completion of a new grinding media facility at the Mont Joli, Quebec foundry is scheduled for early summer.

## GRANDVIEW INDUSTRIES (wholly-owned)

Sales and earnings of the plastics group were satisfactory despite extreme price competition during the first half in plastic pipe products and disruptions to operations caused by the continuing material shortages. A PVC pipe facility at Edmonton and a resin blending plant at Brampton, Ontario were acquired.

## BELLEDUNE FERTILIZER (wholly-owned)

Production of diammonium phosphate in 1973 was 209,000 tons, almost double the 1972 output. This reflects increased market demand and with higher production and better prices, earnings were satisfactory. Construction of additional storage buildings for 60,000 tons of phosphate rock and 60,000 tons of diammonium phosphate is in progress. Production in 1974 will exceed 1973 output and although raw material costs, in particular phosphate rock, will be higher, these should be offset by improved fertilizer prices.

## CANPLAS INDUSTRIES (50% interest)

Sales and profit increased satisfactorily and the new plastic injection moulding plant at Barrie, Ontario became operational.

## WIRE ROPE INDUSTRIES (40% interest)

Operations continued to improve with sales and earnings at record levels. Gains were made in both domestic and export markets. Consolidation of eastern operations at the new plant in Pointe Claire, Quebec and modernization and expansion at Vancouver are now completed. Further expansion is planned for 1974.

# FOREST PRODUCTS

The year 1973 was the most stable and profitable yet enjoyed by Noranda's forest product interests. There were no major construction or acquisition programs and markets for pulp and lumber were strong during most of the year.

Opportunities for further investment are being examined and one project is ready to proceed. The uncertainty created by what appears to be the policies of the British Columbia government makes further investment in that Province seem unattractive for the present. Other major difficulties are the shortage of freight cars, the new problem of bunker fuel and scarcity of skilled labour.

## NORTHWOOD MILLS (wholly-owned)

The four sawmills operated quite well although Princeton had maintenance problems compounded by irregular log supply. A long term contract was concluded for sales of chips to B.C. Forest Products but shipments were still curtailed due to shortage of C.P. rail cars. Lynn Terminals in North Vancouver was acquired and a specialized lumber vessel was chartered.

**Northwood Manufacturing** suffered from rising raw material costs in early 1973 but results improved later on.

Lumber sales in Toronto and London, England were record volumes in both dollars and footage. About 38% of the combined sales of the Building Materials and Sales Divisions were for other producers.

In April, Northwood withdrew from Fundy Forest Industries in New Brunswick, which then went into bankruptcy at a net cost to Northwood of $2,700,000.

| | PRODUCTION | SALES | | |
|---|---|---|---|---|
| | Lumber MFBM | Lumber — MFBM | | Panel Board MSM 1/16 |
| | NWD. Mills | NWD. Mills | NWD. Bldg. | NWD. Bldg. |
| 1973 | 194,500 | 701,200 | 368,000 | 746,000 |
| 1972 | 187,500 | 662,700 | 496,000 | 672,000 |
| 1971 | 84,800 | 476,600 | | |
| 1970 | 73,500 | 410,900 | | |
| 1969 | 62,200 | 270,800 | | |

## NORTHWOOD PULP AND TIMBER (50% interest)

High lumber and rising pulp prices produced the most profitable year since the inception of this company. The losses booked in the early years were completely absorbed by mid 1973.

| PRODUCTION | Pulp-Tons | Lumber — MFBM |
|---|---|---|
| 1973 | 234,200 | 504,500 |
| 1972 | 230,400 | 481,200 |
| 1971 | 215,500 | 315,300 |
| 1970 | 244,100 | 238,200 |
| 1969 | 226,800 | 228,000 |

The pulp mill was party to the industry settlement with the United Paperworkers International Union which resulted in wage and benefit increases of about 12% for each of two years. A boiler failure caused a three week shutdown and will involve a major retubing in 1974. The new turbogenerator, which burns wood waste, renders the mill self-sufficient in electric power.

The five sawmills operated close to plan although Houston did not improve as much as expected. While Northwood is balanced in chip supply, others in the B.C. Northern Interior are deficient because of an overall shortage of wastewood. This results in increased wood costs due to whole log chipping which could be limited by joint action of all concerned.

Construction of a major sawmill addition at Houston, B.C. in mid 1973 was deferred due to uncertainties of timber allocation. The necessary clearances and agreements may permit this to proceed in 1974.

**B. C. Chemicals** at Prince George had a record production of 16,870 tons of sodium chlorate. The long delayed plant to produce 20,000 tons of crude tall oil per annum is underway, as well as a 3,000 tons per year expansion project in the chlorate plant.

## BRITISH COLUMBIA FOREST PRODUCTS
**(28.9% interest)**

B.C.F.P. had by far the best year in its history as the whole Mackenzie project became operational. Stable markets for all its products and relatively few production outages resulted in a profit of $3.33 compared to $1.375 per share in 1972. This result permitted dividends of 40¢ per share compared with 20¢ in 1972. The foregoing earnings and dividends take into account the two for one share split which was effected in May.

The Mackenzie pulp mill had an exceptionally smooth startup and has been held back only by raw material limitations. To this end, a third sawmill is being built at Mackenzie for completion in 1974.

B.C.F.P. was successful in raising $40,000,000 in December, through the sale of debentures, to be used for plant modernization and retirement of bank debt.

| PRODUCTION | Lumber MFBM | Plywood MSM 1/16 | Pulp Tons | Newsprint Tons |
|---|---|---|---|---|
| 1973 | 536,000 | 1,162,000 | 452,000 | 259,000 |
| 1972 | 536,800 | 747,800 | 272,900 | 240,000 |
| 1971 | 438,200 | 651,900 | 220,800 | 237,750 |
| 1970 | 484,700 | 659,000 | 217,500 | 186,700 |
| 1969 | 486,000 | 684,000 | 272,900 | 222,600 |

Unloading lumber and molybdenum at Cardiff, Wales.

Northwood Pulp and Timber sawmill at Prince George, B.C. The 800 ton per day pulp mill is at the top right.

## CONSOLIDATED STATEMENTS OF EARNINGS AND RETAINED EARNINGS

FOR THE YEAR ENDED DECEMBER 31,

| | 1973 | 1972 |
|---|---|---|
| | (in thousands) | |
| **EARNINGS** | | |
| **Revenue** | | |
| From metals, products and custom tolls (note 7) | $ 848,545 | $ 581,052 |
| Dividends, interest, and other income | 2,086 | 3,098 |
| | 850,631 | 584,150 |
| **Expense** | | |
| Cost of metal production and products sold | 616,431 | 409,559 |
| Administration, selling and general expenses | 45,248 | 37,898 |
| Depreciation ($41,860,000) and preproduction charges (note 1) | 48,718 | 32,667 |
| Exploration and research written off (note 1) | 11,345 | 9,618 |
| Interest (including long-term debt interest of $18,509,000) (note 1) | 19,834 | 19,178 |
| | 741,576 | 508,920 |
| | 109,055 | 75,230 |
| Income and production taxes | 54,226 | 35,782 |
| Minority interest in profits (losses) of subsidiaries | 1,346 | (1,954) |
| | 55,572 | 33,828 |
| Earnings of Noranda and subsidiary companies | 53,483 | 41,402 |
| Share of after-tax profits in associated companies (note 2) | 67,911 | 27,765 |
| **Earnings** | $ 121,394 | $ 69,167 |
| **Earnings per share** (note 4(a) ) | $ 5.17 | $ 2.95 |
| **RETAINED EARNINGS** | | |
| **Balance,** beginning of year | | |
| As previously reported | $ 395,139 | $ 360,532 |
| Adjustment resulting from consolidation of subsidiaries not previously consolidated and equity in accumulated earnings of associated companies (note 1) | 18,841 | 13,030 |
| As restated | 413,980 | 373,562 |
| **Earnings** | 121,394 | 69,167 |
| | 535,374 | 442,729 |
| Dividends paid | 32,865 | 28,079 |
| Excess of cost of investments in consolidated subsidiaries over book value of net assets acquired | — | 670 |
| | 32,865 | 28,749 |
| **Balance,** end of year | $ 502,509 | $ 413,980 |

(See accompanying notes)

## CONSOLIDATED STATEMENTS OF SOURCE AND APPLICATION OF FUNDS

FOR THE YEAR ENDED DECEMBER 31,

| | 1973 | 1972 |
|---|---|---|
| | (in thousands) | |
| **Working capital,** beginning of year — as restated | **$ 129,246** | $ 139,963 |
| **Source of funds** | | |
| Operations — | | |
| Earnings | **121,394** | 69,167 |
| Depreciation and preproduction charges | **48,718** | 32,667 |
| Taxes provided not currently payable | **15,371** | 13,397 |
| Minority interest in profits (losses) of subsidiaries | **1,346** | (1,954) |
| Share of earnings less dividends of associated companies | **(51,186)** | (14,348) |
| | **135,643** | 98,929 |
| Issue of shares | **1,273** | 1,039 |
| Long-term financing | **10,865** | 53,226 |
| Fixed asset disposals and adjustments | **8,692** | 17,317 |
| Increase (decrease) in deferred liabilities and holdbacks payable | **936** | (1,738) |
| | **157,409** | 168,773 |
| **Application of funds** | | |
| Fixed assets and projects under construction | **82,918** | 109,573 |
| Non-current assets (net) of acquired subsidiaries (note 2(c) Brenda Mines Ltd. $22,428,000; other $1,907,000) | **24,335** | — |
| Dividends | **32,865** | 28,079 |
| Investments and advances (net) | **(36,014)** | 8,954 |
| Current maturities of long-term debt | **25,151** | 24,324 |
| Deferred preproduction, exploration and other expenditures | **11,248** | 8,880 |
| Other (net) | **(441)** | (320) |
| | **140,062** | 179,490 |
| **Net (decrease) increase** | **17,347** | (10,717) |
| **Working capital,** end of year | **$ 146,593** | $ 129,246 |

(See accompanying notes)

## NORANDA MINES LIMITED

(Incorporated under the laws of Ontario) and its consolidated subsidiaries

## CONSOLIDATED BALANCE SHEET — DECEMBER 31

| | 1973 | 1972 |
|---|---|---|
| **ASSETS** | (in thousands) | |
| **Current assets** | | |
| Cash and short-term commercial notes | **$ 24,511** | $ 24,901 |
| Marketable investments, at cost less amounts written off (quoted market value $40,387,000) | **26,754** | 21,925 |
| Accounts, advances and tolls receivable | **194,234** | 142,494 |
| Inventories (note 1) | **235,213** | 161,026 |
| | **480,712** | 350,346 |
| **Investments in and advances to associated and other companies** (note 2) | **220,631** | 205,459 |
| **Fixed assets** | | |
| Property, buildings and equipment, at cost | **912,653** | 703,197 |
| Accumulated depreciation (note 1) | **(333,415)** | (278,565) |
| | **579,238** | 424,632 |
| Projects under construction | **3,415** | 101,823 |
| | **582,653** | 526,455 |
| **Other** | | |
| Preproduction ($37,641,000), exploration ($12,652,000) and other expenditures deferred (note 1) | **65,132** | 47,412 |
| Debenture and revenue bond discount and financing expenses, at cost less amortization | **4,460** | 4,777 |
| | **69,592** | 52,189 |
| | **$1,353,588** | $1,134,449 |

(See accompanying notes)

## AUDITORS' REPORT

To the Shareholders of
Noranda Mines Limited

We have examined the consolidated balance sheet of Noranda Mines Limited and its consolidated subsidiaries as at December 31, 1973, and the consolidated statements of earnings, retained earnings, and source and application of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

Toronto, Canada,
February 19, 1974.

| | 1973 | 1972 |
|---|---|---|
| **LIABILITIES** | (in thousands) | |
| **Current liabilities** | | |
| Bank advances | **$ 25,667** | $ 37,376 |
| Accounts payable | **193,782** | 142,516 |
| Taxes payable | **30,837** | 10,592 |
| Debt due within one year (note 3) | **83,833** | 30,616 |
| | **334,119** | 221,100 |
| **Deferred liabilities and holdbacks payable** | **5,240** | 4,304 |
| **Taxes provided not currently payable** (note 1) | **56,811** | 40,118 |
| **Long-term debt** (note 3) | **335,563** | 349,849 |
| **Minority interest in subsidiaries** | **44,172** | 31,197 |
| **Shareholders' equity** | | |
| Capital stock (note 4) — | | |
| Authorized: 40,000,000 shares of no par value | | |
| Issued: 24,343,771 shares (note 4(a) ) | **81,490** | 80,217 |
| Contributed surplus | **5,043** | 5,043 |
| Retained earnings | **502,509** | 413,980 |
| | **589,042** | 499,240 |
| Less the Company's pro rata interest in its shares held by subsidiary and associated companies | **(11,359)** | (11,359) |
| | **577,683** | 487,881 |
| | **$1,353,588** | $1,134,449 |

On behalf of the Board:

JOHN R. BRADFIELD, Director

ALFRED POWIS, Director

In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1973 and the results of their operations and the source and application of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year after giving retroactive effect to the changes in accounting policy described in note 1 to the financial statements with which changes we concur.

CLARKSON, GORDON & CO.,
Chartered Accountants.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 1973

## 1. Accounting Policies

**Basis of presentation of financial statements**

The accompanying financial statements include, on a consolidated basis, the accounts of Noranda Mines Limited (the Company) and all of its subsidiaries. Noranda's interest in companies (associated companies) in which it has effective control (but not majority share ownership) or otherwise has significant influence are accounted for on the basis of cost plus the Company's equity in undistributed earnings in such companies since the dates of investment in them. Other long-term investments are carried at cost less amounts written off.

Certain subsidiary and associated companies own shares in the Company. The carrying value of such shares has been deducted from the Company's shareholders equity to the extent of Noranda's proportionate interest in such companies. Similarly the Company's earnings per share has been calculated based on the number of its shares outstanding after reduction for such intercompany holdings.

Prior to 1973 the Company did not consolidate certain foreign and other subsidiaries and, with three exceptions, did not account for investments on the equity basis (described above). The 1973 change in policy has been given retroactive effect and the 1972 figures have been restated resulting in an adjustment to 1972 opening retained earnings of $13,030,000, an increase in previously reported 1972 earnings of $4,834,000 ($0.20 per share) and a decrease of $977,000 in 1972 dividends paid. The decrease in the number of shares used in the calculation of earnings per share also had the effect of increasing earnings per share by $0.10 (note 4(a) ).

**Translation of foreign currencies**

Foreign currency assets and liabilities of the Company and its domestic subsidiaries are translated into Canadian dollars at current rates of exchange.

The statements of companies outside of Canada are translated into Canadian dollars as follows: working capital at exchange rates prevailing at the end of the period; fixed and other long-term assets, long-term debt, and depreciation provisions on the basis of historic rates of exchange; revenues and expenses (other than depreciation) at average rates during the period. Equity in earnings of associated foreign companies are translated in a similar manner. Exchange gains or losses from the translation procedures are included in consolidated earnings.

**Inventories**

Mine products are valued at estimated realizable value and other inventories at the lower of cost or market.

**Depreciation, preproduction charges**

Depreciation of property, buildings and equipment and amortization of preproduction expenditures is based on the estimated service lives of the assets calculated using the method considered appropriate in the circumstances, for the most part the straight-line method for fixed assets and unit of production method for preproduction.

**Exploration**

Exploration expenditures are charged against current earnings unless they relate to properties from which a productive result is reasonably certain or on which work has just commenced. Gains on sale or recoveries of costs previously written off are normally credited against exploration expense.

**Income taxes**

Under the income tax laws some costs and revenues are includible in taxable income in years which are earlier or later than those in which they are included in income reported in the financial statements. As a result of these timing differences between taxable income and reported income, income taxes currently payable normally differ from the provision for taxes charged to earnings. The differences are shown in the consolidated balance sheet as taxes provided not currently payable.

Potential tax savings related to losses incurred (and, in the U.S. investment tax credits carried forward) are not reflected in earnings before realization unless they are virtually certain of recovery.

**Interest**

Generally interest expense is charged against income as incurred except interest on debt that can be specifically identified with a major capital expenditure program. In these circumstances interest is capitalized during the construction period.

**Research**

Research expense is charged against income as incurred.

**Aluminum plant**

Assets and the related debt of the aluminum plant in New Madrid, Missouri, while technically the property and obligation of the City, are carried on the Company's books by virtue of its long-term lease option and unconditional guarantees.

## 2. Investments

(a) Investments in and advances to associated and other companies consist of:

| **Investments** — carried on an equity basis | Direct Interest | Underlying Equity in Net Assets 1973 | 1972 |
|---|---|---|---|
| | | (in thousands) | |
| British Columbia Forest Products Limited | 29% | $ 33,119 | $ 26,886 |
| Craigmont Mines Limited | 20 | 3,477 | 2,161 |
| Kerr Addison Mines Limited | 41 | 20,903 | 19,143 |
| Mattagami Lake Mines Limited (N.P.L.) | 31 | 23,083 | 15,577 |
| Northwood Pulp and Timber Limited | 50 | 12,083 | 6,738 |
| Orchan Mines Limited | 45 | 8,492 | 7,515 |
| Pamour Porcupine Mines Limited | 49 | 4,696 | 4,198 |
| Placer Development Limited | 27 | 44,429 | 29,363 |
| Brenda Mines Ltd. (note 2c) | 50 | — | 1,952 |
| Other companies | — | 31,789 | 22,128 |
| | | 182,071 | 135,661 |
| **Other Investments and Advances** | | | |
| Shares at cost less amounts written off | | 11,773 | 11,850 |
| Advances and other indebtedness | | 26,787 | 57,948 |
| | | $ 220,631 | $ 205,459 |

(b) Included above are shares carried at a book value of $113,080,000 which had a quoted market value of $266,729,000 at December 31, 1973. The latter amount does not necessarily represent the value of these holdings, which may be more or less than that indicated by market quotations.

(c) A year end purchase of additional shares of Brenda Mines Ltd., previously 50% owned has resulted in the consolidation of its balance sheet at December 31, 1973. The results of Brenda Mines Ltd.'s operations, accounted for on an equity basis for 1973, will be included on a fully consolidated basis from January 1, 1974. The effect on Noranda's December 31, 1973 balance sheet is summarized below:

| | ($000) |
|---|---|
| Non-current assets: Fixed | $ 35,855 |
| Other | 989 |
| | 36,844 |
| Deduct: Long-term liabilities | 1,446 |
| Minority interest | 12,970 |
| | 14,416 |
| Non-current assets (net) | $ 22,428 |
| Working capital increase | $ 15,002 |
| Reduction in investments and advances to associated companies | $ 37,430 |

## 3. Debt

(a)

| Long-term Debt: | Dec. 31, 1973 | Dec. 31, 1972 |
|---|---|---|
| | (in thousands) | |
| — Noranda Mines Limited | | |
| 6½% notes due February 3, 1975 | $ 20,000 | $ 20,000 |
| 10% notes payable due February 2, 1973 | — | 20,000 |
| 7½% sinking fund debentures due Oct. 1, 1988 | 30,000 | 30,000 |
| 9¼% sinking fund debentures due Oct. 15, 1990 | 40,000 | 40,000 |
| — Canada Wire and Cable Limited | | |
| 5⅝% sinking fund debentures maturing June 1, 1983 | 2,330 | 2,700 |
| — Noranda Aluminum Inc. | | |
| 4.80% to 5.90% industrial revenue bonds, serial and sinking fund issues, maturing Nov. 1, 1974 to 1978 and 1993 (December 31, 1973—$80,730,000 U.S.; December 31, 1972—$82,915,000 U.S.) | 86,430 | 88,759 |
| — Norandex Inc. | | |
| 5½%-9¼% mortgage notes payable in monthly installments to 1990 (December 31, 1973—$10,660,000 U.S.; December 31, 1972—$11,902,000 U.S.) | 11,410 | 12,774 |
| — Brunswick Mining & Smelting Corporation Ltd. | | |
| 5.85% First Mortgage Sinking Fund Bonds, series "A" maturing April 1, 1974-1986 inclusive | 12,800 | 14,032 |
| 7.25% General Mortgage Sinking Fund Bonds, series "A" maturing August 15, 1974-1987 inclusive | 15,250 | 16,000 |
| — sundry indebtedness | 1,700 | 1,065 |
| | 219,920 | 245,330 |
| Other Debt: | | |
| Notes payable (Note 3(b) ) | 173,476 | 109,135 |
| Banker's acceptances | 26,000 | 26,000 |
| | 419,396 | 380,465 |
| Debt due within one year | 83,833 | 30,616 |
| Long-term debt | $ 335,563 | $ 349,849 |

Maturities of long-term debt are as follows:
1975 — $25,300,000; 1976 — $125,500,000; 1977 — $5,600,000; 1978 — $5,700,000; subsequent — $173,500,000.

## 3. Debt — continued

(b) Notes payable, representing promissory notes with maturities from January to October 1974, have been classified as long-term debt to the extent of the Company's revolving contractual credits with its bankers of $120,000,000 extending to June 30, 1976.

## 4. Shareholders' Equity

(a) Effective July 6, 1973 the Company's authorized capital stock consisting of 40,000,000 shares without par value was reclassified as follows:

| | |
|---|---|
| Class A and Class B shares | 39,999,000 |
| Common shares (unissued) | 1,000 |
| Total authorized | 40,000,000 |

All shares then outstanding were reclassified as Class A shares.

Class A and Class B shares are voting, convertible into one another on a share for share basis and rank equally with respect to dividends and in all other respects. The only distinction between the two classes is that the directors may specify that cash dividends on Class B shares be paid first out of 1971 tax-paid undistributed surplus on hand and then out of 1971 capital surplus on hand (as those expressions are defined in the Income Tax Act of Canada), with the result that Class B dividends so paid will be less than the Class A dividends by the amount of tax paid thereon.

During the year 1,224,775 Class B shares were issued as a result of the aforementioned conversion right.

The issued capital stock at December 31, 1973 is summarized below:

| | |
|---|---|
| Class A | 23,119,016 shares |
| Class B | 1,224,755 |
| Total | 24,343,771 |
| Less the Company's pro rata interest in its shares held by subsidiary and associated companies | 865,317 |
| | 23,478,454 |

During the year the following dividends were declared:

| | |
|---|---|
| Class A — $1.40/share | $33,222,000 |
| Class B — 63.75¢/share (for half year) including 15% tax on undistributed income | 854,000 |
| | $34,076,000 |
| Less the Company's pro rata share of dividends paid to subsidiary and associated companies | 1,211,000 |
| Net charge to retained earnings | $32,865,000 |

(b) (i) During the year 45,966 shares in the Company's capital stock were issued under the Company's stock option plan for $1,270,000.

(ii) Under the provisions of the stock option plan,

— Options were granted during the year on 30,000 shares exercisable up to September 10, 1981 at $47.87 per share.

— At December 31, 1973 options on 40,700 shares were outstanding, exercisable at prices varying from $22.94 to $47.87 for periods up to 1981.

(c) Under the Company's share purchase plan shares are sold to a trustee for resale to employees financed by an interest-free loan from the Company. At December 31, 1973 the amount of the loan included in accounts receivable was $1,790,000.

## 5. Commitments and Contingent Liabilities

(a) Approved capital projects and financing commitments outstanding total approximately $106,000,000 at December 31, 1973.

(b) The Company has guaranteed repayment of bank loans of associated companies to the extent of approximately $23,200,000.

(c) As at December 31, 1973 Noranda's total unfunded obligation under its pension plans with respect to past service is estimated at $5,300,000 of which $400,000 has been provided in the accounts. These obligations are funded as required by applicable governing legislation. In Canada the past service obligation is funded and absorbed against income over a period up to 16 years.

## 6. Income Taxes

U.S. subsidiaries of the Company have estimated loss carry-forwards for tax purposes of approximately $20,000,000 which are available to offset taxable income in the next few years.

## 7. Consolidated Divisional Revenues

Revenues from the main divisions of the business are set out on page 27 in the table of "Consolidated Divisional Results".

## 8. Remuneration of Directors and Senior Officers

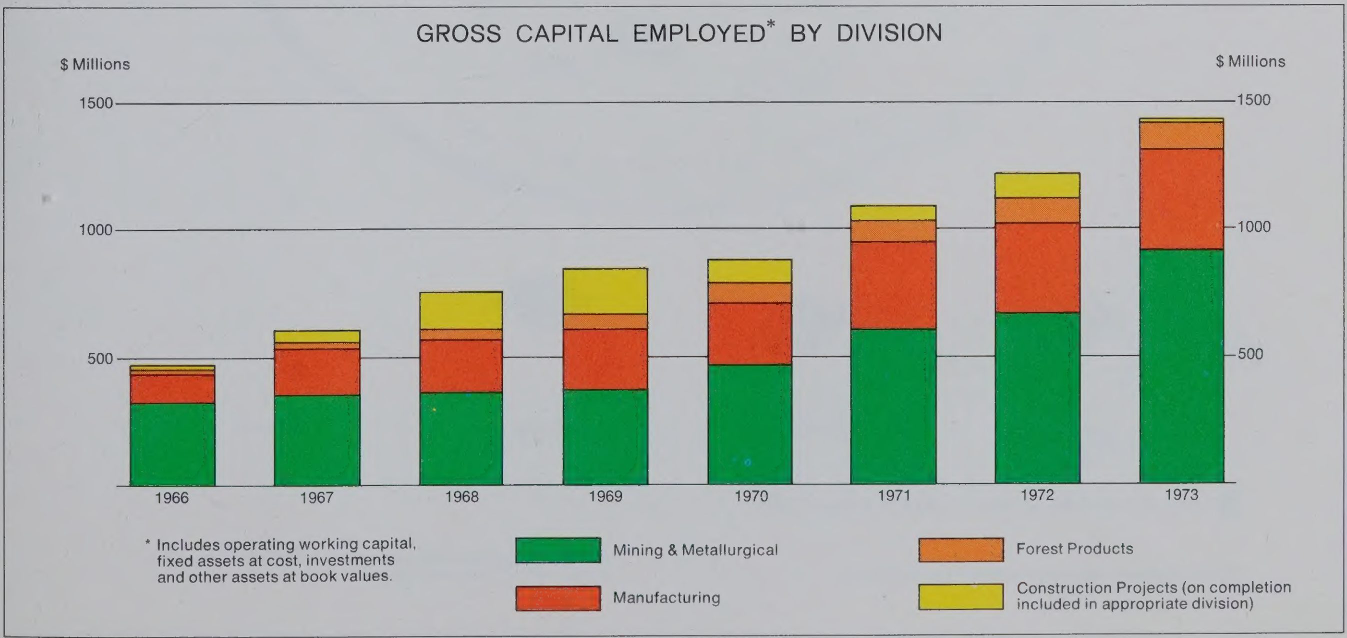
The aggregate direct remuneration paid or payable by the Company and its consolidated subsidiaries to directors and senior officers amounted to $1,137,000.

# CONSOLIDATED DIVISIONAL RESULTS

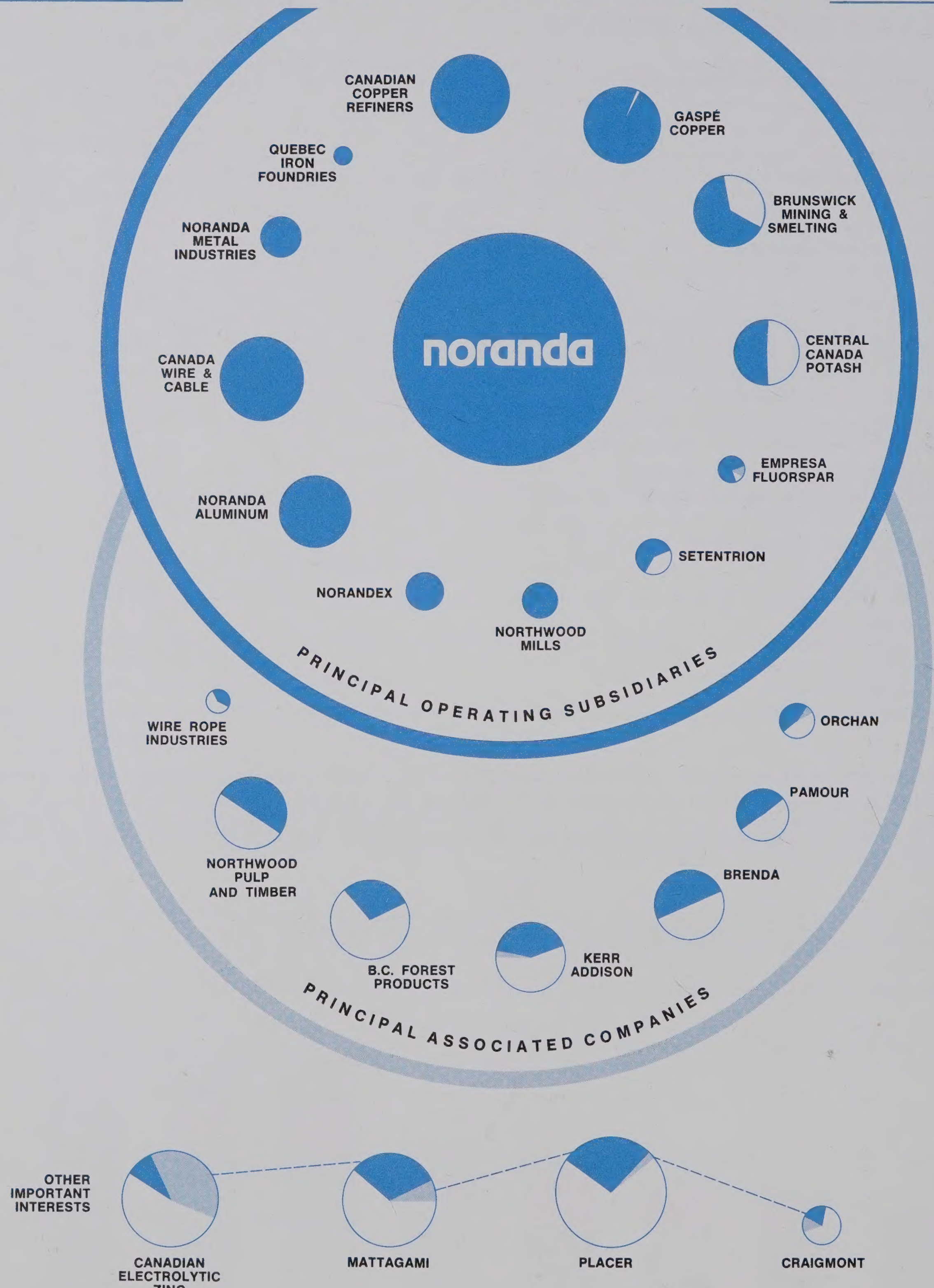
| | 1973 | 1972 |
|---|---|---|
| | (in thousands) | |
| **Revenue from metals, products and custom tolls** | | |
| Copper mining, smelting and refining operations * | $ 327,890 | $ 214,186 |
| Other mining and metallurgical operations ** | 229,638 | 141,209 |
| Total mining and metallurgical operations | 557,528 | 355,395 |
| Manufacturing operations | 438,798 | 339,685 |
| Forest products operations ** | 253,889 | 167,974 |
| Gross revenue | 1,250,215 | 863,054 |
| Less: sales between divisions | 102,709 | 72,137 |
| sales by associated companies ** | 298,961 | 209,865 |
| Revenue as reported | $ 848,545 | $ 581,052 |
| **Earnings** | | |
| Copper mining, smelting and refining operations * | $ 46,259 | $ 44,719 |
| Other mining and metallurgical operations ** | 67,403 | 27,023 |
| Earnings from mining investments | 1,117 | 909 |
| Gross mining and metallurgical earnings | 114,779 | 72,651 |
| Less exploration written off net of applicable tax reductions | 7,673 | 6,433 |
| Net mining and metallurgical earnings | 107,106 | 66,218 |
| Manufacturing operations and investments | 23,233 | 11,364 |
| Forest products operations ** | 15,005 | 10,696 |
| Earnings before common costs | 145,344 | 88,278 |
| Less common costs | 23,950 | 19,111 |
| Earnings as reported | $ 121,394 | $ 69,167 |
| **Breakdown of common costs** | | |
| Corporate office costs | $ 7,512 | $ 6,251 |
| Interest expense net of revenue | 23,599 | 19,147 |
| Unallocated research costs | 982 | 638 |
| Less applicable tax reductions | (8,143) | (6,925) |
| Total | $ 23,950 | $ 19,111 |

* Consists of operations of the Horne, Geco and Bell Copper mines, Gaspé Copper Mines and Canadian Copper Refiners.

** Gross revenues and earnings include Noranda's share of the revenues and earnings of associated companies accounted for on an equity basis. These gross revenues include $122,377,000 from mining and metallurgical operations, $126,336,000 from forest operations, and $50,248,000 from manufacturing operations in 1973. ($65,677,000, $108,601,000 and $35,587,000 respectively in 1972.)



# MAJOR INTERESTS




HELD BY NORANDA OR WHOLLY OWNED SUBSIDIARIES

NORANDA'S INDIRECT BENEFICIAL INTEREST

Where applicable the size of each circle indicates the total market value of shares outstanding.

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